

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059147 A2

- (51) International Patent Classification⁷: **C12N 15/82**
- (21) International Application Number:
PCT/EP2004/053594
- (22) International Filing Date:
17 December 2004 (17.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
03104764.0 17 December 2003 (17.12.2003) EP
60/531,866 22 December 2003 (22.12.2003) US
- (71) Applicant (*for all designated States except US*):
CROPDESIGN N.V. [BE/BE]; Technologiepark 3,
B-9052 Zwijnaarde (BE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **FRANKARD, Valerie** [BE/BE]; Rue de Percke 78, B-1180 Bruxelles (BE). **MIRONOV, Vladimir** [BE/BE]; Zebrastraat 11, B-9000 Gent (BE). **SANZ MOLINERO, Ana Isabel** [ES/BE]; Bernheimlaan 38, B-9050 Gentbrugge (BE).
- (74) Common Representative: **CROPDESIGN N.V.**; Technologiepark 3, B-9052 Zwijnaarde (BE).
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- *without international search report and to be republished upon receipt of that report*
 - *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PLANTS HAVING MODIFIED GROWTH CHARACTERISTICS AND METHOD FOR MAKING THE SAME

(57) Abstract: The present invention concerns a method for modifying the growth characteristics of plants by modulating expression in a plant of a nucleic acid sequence encoding a GRUBX protein and/or modulating activity and/or levels in a plant of a GRUBX protein. The present invention furthermore provides novel GRUBX proteins and nucleic acids encoding such proteins. The invention also relates to constructs comprising GRUBX encoding nucleic acids, and transgenic plants having modified growth characteristics, which plants have modulated expression of a nucleic acid encoding a GRUBX protein.



WO 2005/059147 A2